



Patent # 5328-12

10-06-03

Patent
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Takeshi KOIZUMI et al.

Serial No.: 10/601,713

Filed: June 20, 2003

For: Process for Improving Efficiency of DNA
Amplification Reaction

Examiner:

Group Art: 1645

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In compliance with the duty of disclosure under 37 C.F.R. § 1.56 and in accordance with the practice under 37 C.F.R. §§ 1.97 and 1.98, the Examiner's attention is directed to the documents listed on the enclosed Forms PTO/SB/08A. Copies of the listed documents are also enclosed.

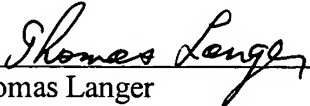
It is respectfully requested that the above information be considered by the Examiner and that a copy of the enclosed Forms PTO/SB/08A be returned indicating that such information has been considered.

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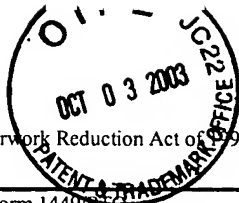
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If any fees or charges are deemed required at this time in connection with the application, the same may be charged to our Patent and Trademark Office Deposit Account No. 03-2412.

Respectfully submitted,
COHEN, PONTANI, LIEBERMAN & PAVANE

By: 
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Dated: October 3, 2003



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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)	Complete if Known	
	Application Number	10/601,713
	Filing Date	June 20, 2003
	First Named Inventor	Takeshi KOIZUMI
	Art Unit	
	Examiner Name	
Sheet 1 of 3	Attorney Docket Number	5328-12

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind-Code ² (if known)			
		US-5,652,096	07-29-1997	Cimino	
		US-5,780,610	07-14-1998	Collins et al	
		US-			
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Application Number	10/601,703
Filing Date	June 20, 2003
First Named Inventor	Takeshi KOIZUMI
Art Unit	
Examiner Name	
Attorney Docket Number	5328-12

Sheet 2 of 3

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	1	Gyllenstein et al., "Generation of single-stranded DNA by the polymerase chain reaction and its application to direct sequencing of the HLA-DQA locus", Proc. Natl. Acad. Sci. USA, Vol. 85, pp. 7652-7656, Oct. 1988.	
	2	Afonina et al., "Sequence-specific arrest of primer extension on single-stranded DNA by an oligonucleotide-minor groove binder conjugate", Proc. Natl. Acad. Sci. USA, Vol. 93, pp. 3199-3204, Apr. 1996.	
	3	Mack et al., "A sensitive method for the identification of uncharacterized viruses related to known virus groups: Hepadnavirus model system", Proc. Natl. Acad. Sci. USA, Vol. 85, pp. 6977-6981, Sept. 1988.	
	4	Afonina et al., "Efficient priming of PCR with short oligonucleotides conjugated to a minor groove binder", Nucleic Acid Research, Vol. 25, No. 13, pp. 2657-2660, 1997.	
	5	Hausch et al., "Multifunctional DNA conjugates for the <i>in vitro</i> selection of new catalysts", Nucleic Acid Research, Vol. 28, No. 8, p. e35, 2000.	
	6	Kutyavin et al., "3'-Minor groove binder-DNA probes increase sequence specificity at PCR extension temperatures", Nucleic Acid Research, Vol. 28, No. 2, pp. 655-661, 2000.	
	7	Kutyavin et al., "Oligonucleotides with conjugated dihydropyrroloindole Tripeptides: base composition and backbone effects on Hybridization", Nucleic Research, Vol. 25, No. 18, pp. 3718-3723, 1997	
	8	Wellinger et al., " <i>In vivo</i> mapping of Nucleosomes using psoralen-DNA crosslinking and primer extension", Nucleic Acid Research, Vol. 26, No. 6, pp. 1544-1545, 1998	
	9	Millican et al., "Preparation of Single-Stranded Antisense cDNA Probes by Asymmetric PCR", Methods of Molecular Biology, Vol. 105, pp. 337-350, 1998.	
	10	Mullis et al., "Specific Enzymatic Amplification of DNA In Vitro: The Polymerase Chain Reaction", Cold Harbor Symposia on Quantitative Biology, Vol. LI., pp. 263-273, 1986	

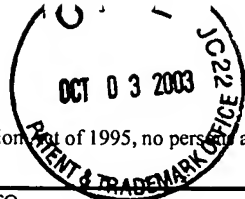
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Sheet 3 of 3	Attorney Docket Number		5328-12	

NON PATENT LITERATURE DOCUMENTS			
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	11	Scharf et al., "Direct Cloning and Sequence of Analysis of Enzymatically Amplified Genomic Sequences", Science, Vol. 233, pp. 1076-1078, Sept. 1986.	
	12	Innis et al., "PCR Protocols, A Guide to Methods and Applications", pp. 39-45, Academic Press, Inc.. 1990	
	13	Mazars et al., "Direct sequencing by thermal asymmetric PCR", Nucleic Acids Research, Vol. 19, p. 4783, 1991	
	14	Koizumi et al., "Improvements in amplification efficiency by addition of oligo DNA to PCR primers and practical applications therefore", A Japanese Abstract and English translation presented at the 25th Annual Meeting of the Molecular Biology Society of Japan held in Yokohama, Japan on Dec. 11-14, 2002.	

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